

Claims

1. A computer system (999) for handling incremental data comprising:

- 5 a server-controller (101-1) for receiving a modification-request from a client (900) to modify an original model (200-T1) of an application component that is stored on the server (901) into a modified model (200-T2) of
- 10 the application component;
- a server-renderer (101-2) for generating at least one browser-increment (300-I) that corresponds to the difference between the original model (200-T1) and the modified model (200-T2);
- 15 a client-assembler (100-1) receiving the at least one browser-increment (300-I) from the server (901) and updating at the client (900) an original DOM component (300-T1) of a browser component with the at least one browser-
- 20 increment (300-I), resulting in a modified document object model (DOM) component (300-T2) that corresponds to the modified model (200-T2), wherein the original DOM component (300-T1) corresponds to the original model
- 25 (200-T1); and
- a client-controller (100-2) for generating the modification-request.

2. The computer system (999)³² of claim 1, wherein the client-controller (100-2) stores the at least one browser-increment (300-I) in a cache-memory (920-C) of the client (900) and instructs the client-
5 assembler (100-1) to deactivate the at least one browser-increment (300-I) upon receiving a deactivation-request (DAR) (DAR).
3. The computer system (999) of claim 2, wherein the
10 client-controller (100-2) retrieves the at least one browser-increment (300-I) from the cache-memory (920-C) and instructs the client-assembler (100-1) to reactivate the at least one browser-increment (300-I) upon receiving a reactivation-request
15 (RAR).
4. The computer system (999) according to any of the claims 1 to 3, wherein the client-controller (100-2) instructs the client-assembler (100-1) to
20 reset the original or modified DOM component (300-T1, 300-T2) upon receiving a reset-request.
5. The computer system (999) according to any of the claims 1 to 4, wherein the original model (200-T1)
25 and the modified model (200-T2) are defined by a component class selected from the group of Java class, Java Server Pages class, servlet class, Pascal class, C class, C++ class, and Business Server Pages class.

6. The computer system (999) according to any of the
claims 1 to 5, wherein the browser component is
defined by a component script class selected from
the group of JavaScript class, JavaApplets class
and VisualBasic Script class.
7. The computer system (999) of claim 5, wherein the
component class implements at least a portion of
the server-controller (101-1) and the server-
renderer (101-2).
8. The computer system (999) of claim 6, wherein the
component script class implements at least a
portion of the client-controller (100-2) and the
client-assembler (100-2).
9. The computer system (999) of claim 6, wherein the
component script class and the component class have
identical hierarchies.

10. A server (900) in a ³⁴computer system (999) for handling incremental data comprising:

5 a server-controller (101-1) for receiving a modification-request from a client-controller (100-2) of a client (900) in the computer system (999) to modify an original model (200-T1) of an application component that is stored on the server (901) into a modified model (200-T2) of the application component;

10 and

a server-renderer (101-2) for generating at least one browser-increment (300-I) that corresponds to the difference between the original model (200-T1) and the modified model (200-T2); the
15 at least one browser-increment (300-I) made to be sent to a client-assembler (100-1) of the client (900) for updating an original DOM component (300-T1) that corresponds to the original model (200-T1) with the at least one
20 browser-increment (300-I), resulting in a modified DOM component (300-T2) that corresponds to the modified model (200-T2).

11. A client (900) in a computer system (999) for handling incremental data comprising:

a client-controller (100-2) sending a modification-request to a server-controller (101-1) of a

server (901) in the computer system (999); and

a client-assembler (100-1) receiving at least one browser-increment (300-I) from the server (901)

and updating an original DOM component (300-T1)

that corresponds to an original model (200-T1)

of an application component with the at least

one browser-increment (300-I), resulting in a

modified DOM component (300-T2) that

corresponds to a modified model (200-T2) of the

application component, wherein the server-

controller (101-1) modifies the original model

(200-T1) being stored on the server (901) into

the modified model (200-T2); and a server-

renderer (101-2) of the server (901) generates

the at least one browser-increment (300-I) that

corresponds to the difference between the

original model (200-T1) and the modified model

(200-T2).

12. The client (900) of claim 11, wherein the client-

controller (100-2) stores the at least one browser-

increment (300-I) in a cache-memory (920-C) of the

client (900) and instructs the client-assembler

(100-1) to deactivate the browser-increment (300-I)

upon receiving a deactivation-request (DAR).

13. The client (900) of claim 12, wherein the client-
controller (100-2) retrieves the at least one
browser-increment (300-I) from the cache-memory
(920-C) and instructs the client-assembler (100-1)
5 to reactivate the at least one browser-increment
(300-I) upon receiving a reactivation-request
(RAR).

14. The client (900) according to any of the claims 11
10 to 13, wherein the client-controller (100-2)
instructs the client-assembler (100-1) to reset the
original DOM component (300-T1) upon receiving a
reset-request.

15. A method (400) for handling incremental data on a
server (901) of a computer system (999) comprising
the steps:

receiving (410) by a server-controller (101-1) a
modification-request from a client-controller
(100-2) belonging to a client (900) of the
computer system (999) to modify an original
model (200-T1) of an application component that
is stored on the server (901) into a modified
model (200-T2) of the application component;

generating (420) by a server-renderer (101-2) at
least one browser-increment (300-I) that
corresponds to the difference between the
original model (200-T1) and the modified model
(200-T2); and

sending (430) the at least one browser-increment
(300-I) to a client-assembler (100-1) of the
client (900) for updating on the client (900)
an original DOM component (300-T1) that
corresponds to the original model (200-T1) with
the at least one browser-increment (300-I),
resulting in a modified DOM component (300-T2)
that corresponds to the modified model (200-
T2).

16. A method (500) for handling incremental data on a client (900) of a computer system (999) comprising the steps:

5 sending (510) from a client-controller (100-2) a modification-request to a server-controller (101-1) of a server (901) of the computer system (999); and

10 receiving (520) by a client-assembler (100-1) at least one browser-increment (300-I) from the server (901) as a response to the modification request; and

15 updating (530) an original DOM component (300-T1) that corresponds to an original model (200-T1) of an application component with the at least one browser-increment (300-I), resulting in a modified DOM component (300-T2) that corresponds to a modified model (200-T2) of the application component, wherein the server-controller (101-1) modifies the original model (200-T1) being stored on the server (901) into the modified model (200-T2); and a server-renderer (101-2) of the server (901) generates the at least one browser-increment (300-I) that corresponds to the difference between the original model (200-T1) and the modified model (200-T2).

17. The method (500) of claim 16, comprising the further step:

30 storing (540) the at least one browser-increment (300-I) in a cache-memory (920-C) of the client (900).

18. The method (500) of claim 17, comprising the further step:

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deactivating (550) the browser-increment (300-I) by
the client-assembler (100-1) upon the client-
controller (100-2) having received a
deactivation-request (DAR).

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19. The method (500) of claim 18, comprising the
further steps:

retrieving (560) the at least one browser-increment
(300-I) from the cache-memory (920-C); and

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reactivating (570) the browser-increment (300-I) by
the client-assembler (100-1) upon the client-
controller (100-2) having received a
reactivation-request (RAR).

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20. A computer program product (101) comprising
instructions that, when loaded into a memory (921)
of a server (901), cause at least one processor
(911) of the server (901) to execute the steps of
claim 15.

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21. A computer program product (100) comprising
instructions that, when loaded into a memory (920)
of a client (900), cause at least one processor
(910) of the server (900) to execute the steps of
any of the claims 16 to 19.

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22. A computer system (999)⁴⁰ for handling incremental data comprising:

a client-controller (100-2) generating a modification-request;

5 a server-controller (101-1) modifying (703) a model (200-Tn) of an application component on a server (901) as a response to the modification-request;

10 a server-renderer (101-2) generating (801) at least one browser-increment (300-I) after the model (200-Tn) has been modified (703); and

15 a client-assembler (100-1) receiving the at least one browser-increment (300-I) from the server (901) and updating an instance of a browser component at the client (900) with the at least one browser-increment (300-I), wherein the browser component corresponds to the application component.